

### **REMARKS**

Reconsideration and allowance of the subject application are respectfully requested. Claims 1-24 remain pending, claims 1, 11, and 21-24 being independent claims.

#### **Previous Indication of Allowable Subject Matter**

The Office Action dated February 23, 2005, indicated that claims 4-7 and 14-17 would be allowable if rewritten in independent form to include limitations of their respective base claim and any intervening claims. In the Reply dated May 10, 2005, Applicants rewrote allowable dependent claims 4, 5, 14, and 15 as new independent claims 21-24, respectively. The new Office Action, however, rejects these claims based on prior art (Danninger; DeLeo) that was previously considered in assessing patentability. In an effort to expedite prosecution, Applicants have amended the claims to more clearly distinguish over the previously-considered and newly-cited prior art. For at least reasons set forth below, Applicants respectfully submit that all pending claims should be indicated as allowable.

#### **Rejections Under 35 U.S.C. § 102**

##### **1. Danninger**

Claims 1, 4, 11, 14, 21 and 23 stand rejected under 35 U.S.C. § 102 as allegedly being anticipated by Danninger (U.S. Patent 4,152,938). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

Independent claim 1 is directed to a temperature sensor arrangement, which comprises: a sensor cavity, a temperature sensing element being positioned along a center line of the sensor cavity and generating a signal indicating temperature of air flowing thereto; and a generally cylindrical outer casing surrounding the sensor cavity. The outer casing includes a pattern of air inflow passages arranged on a tubular surface of the outer casing for allowing air flow to the temperature sensing element in the sensor cavity so that the temperature sensing element senses temperature of air flowing generally transverse to the outer casing and entering the sensor cavity via the pattern of air inflow passages. The pattern of air inflow passages overlaps the temperature sensing element in a direction extending radially from the center line of the sensor cavity, the

direction being generally transverse to the direction of air flow to the temperature sensor arrangement. The air inflow passages are angled such that there is no direct line of air flow from an exterior of the outer casing to the sensing element. Therefore, as emphasized by the amendments presented herein, the temperature sensor arrangement of claim 1 includes a pattern of angled air inflow passages arranged on a tubular surface of the generally cylindrical outer casing surrounding a sensor cavity. In this arrangement, although the pattern of air inflow passages overlap the temperature sensing element along a direction extending radially from a center line of the sensor cavity, there is no direct line of air flow from an exterior of the outer casing to the sensing element. The temperature sensing element senses temperature of the air flowing into the sensor cavity via the pattern of air inflow passages.

Danninger discloses an aircraft temperature probe that, as illustrated in Fig. 2, includes a temperature sensor element provided in a sensor channel 30. Column 4, lines 11-14. The temperature probe 10 includes an inner tubular wall 25 to form an outer wall of the sensor channel 30 and an outer wall 26. Column 3, lines 4-9. A front portion of the inner tubular wall 25 includes a series of holes 61, near an air intake orifice 48, which allows air entering the temperature probe 10 via a forward end 22 of the probe to drain into a hollow area 33 formed external of the inner tubular wall 25.

Although the Examiner relies on the series of holes 61 of the above-described arrangement disclosed in Danninger as allegedly corresponding to the pattern of flow passages recited in claim 1, Applicants note that the holes 61 of Danninger are not air inflow passages by which air flowing generally transverse to the outer casing of the temperature sensor arrangement flows to the temperatures sensing element, and are not arranged in the manner recited in claim 1.

According to MPEP § 2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claims." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913 (Fed. Cir. 1989).

In view of the above, Applicants submit that Danninger fails to anticipate claim 1, or any claim depending therefrom. Danninger, likewise, fails to anticipate the temperature sensor arrangement recited in independent claim 11 and its independent claims, requiring a pattern of air inflow passages that is not taught or suggested by the holes 61 provided in the temperature probe 10 of Danninger. Independent claims 21 and 23 define over Danninger based on reasoning similar to that set forth above with regard to independent claims 1 and 11, respectively.

In view of the above, Applicants respectfully request that the Examiner reconsider and withdrawal the rejection under 35 U.S.C. § 102 based on Danninger.

2. DeLeo

Claims 1, 5-7, 11, 15-17, 22, and 24 stand rejected under 35 U.S.C. § 102 as allegedly being anticipated by DeLeo (U.S. Patent 4,403,872). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

DeLeo discloses a device 10 for measuring a parameter (e.g., temperature) in a fluid stream (e.g., air). The sensor device 10 includes a housing 11 having an inlet port for fluid flow through a bore 18. A series of ports 22 are provided around a leading portion 12 of the probe 10 to exhaust flow from the bore 18 to the exterior. Although, as stated on page 3 of the Office Action, the Examiner relies on the exhaust ports 22 as allegedly corresponding to the pattern of flow passages recited in the rejected claims, Applicants note that such exhaust ports are not air inflow passages by which air flowing generally transverse to the outer casing of the temperature sensor arrangement enters the sensor cavity for temperature measurement, and does not have characteristics of the air inflow passages recited in the above-identified claims.

At least for this reason, Applicants respectfully submit that DeLeo fails to anticipate any pending claim and respectfully request that the Examiner reconsider and withdraw the rejection of claims under 35 U.S.C. § 102 based on DeLeo.

### Rejections Under 35 U.S.C. § 103

1. JP 62043528 - Roeckel

Claims 1-3, 5, 8, 10-13, 15, 18, 20, 22, and 24 stand rejected under 35 U.S.C. § 103 as allegedly being unpatentable over JP 62043528 in view of Roeckel et al. (U.S. Publication No. 20030126925). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

JP 62-43528 discloses an apparatus for measuring temperature of a fluid. As illustrated in Figs. 1-3, cooling material 4 enters a chamber 12 via fluid intake ports 16, where the cooling material 14 is to be mixed. The cooling material 4 mixed in the chamber 12 flows into a temperature measuring chamber 14 through an orifice 15, for temperature measurement by a temperature measuring device 14. Although the Examiner relies on the inflow port 16 of JP 62043528 as allegedly corresponding to the pattern of flow passages recited in the above-listed claims, Applicants note that the inflow port 16 of the cited reference is not arranged relative to the sensor cavity/temperature sensing element in a manner required by the above-listed claims, which each require that the pattern of inflow passages overlap the temperature sensor arrangement in a direction extending radially from the center line of the sensor cavity, such a direction being generally transverse to the direction of air flow to the temperature sensor arrangement. The Examiner's reliance on the secondary reference, Roeckel, fails to make up for these deficiencies of JP 62043528.

To establish *prima facie* obviousness, all claim limitations must be taught or suggested by the prior art and the asserted modification or combination of prior art must be supported by some teaching, suggestion, or motivation in the applied reference or in knowledge generally available to one skilled in the art. *In re Fine*, 837, F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Thus, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). The prior art must suggest the desirability of the modification in order to establish a *prima facie* case of obviousness. *In re Brouwer*, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1995). It can also be said that the prior art must collectively suggest or point to the claimed invention to support a finding of obviousness. *In re*

*Hedges*, 783 F.2d 1038, 1041, 228 USPQ 685, 687 (Fed. Cir. 1986); *In re Ehrreich*, 590 F.2d 902, 908-09, 200 USPQ 504, 510 (CCPA 1979).

At least in view of the above, Applicants respectfully submit that the asserted combination (assuming these references may be combined, with Applicants do not admit) fails to establish *prima facie* obviousness of any pending claim. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection under 35 U.S.C. § 103 based on the asserted combination of JP 62043528 and Roeckel.

2. JP 62043528 – Roeckel - Suzuki

Claims 9 and 19 stand rejected under 35 U.S.C. § 103 as allegedly being unpatentable over JP 62043528 in view of Roeckel, and further in view of Suzuki et al. (U.S. Patent 4,941,437). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

As set forth on page 6 of the Office Action, the Examiner relies on Suzuki as allegedly teaching incremental features of dependent claims 9 and 19. Applicants submit, however, that this reliance on Suzuki fails to make up for the deficiencies of the asserted combination relied on to reject independent claim 1, from which claims 9 and 19 depend. Accordingly, the asserted combination of JP 62043528 in view of Roeckel and Suzuki (assuming these references may be combined, which Applicants do not admit) fails to establish *prima facie* obviousness of any pending claim.

In view of the above, Applicants respectfully request reconsideration and withdrawal of the Examiner's rejection under 35 U.S.C. § 103 based on the asserted combination of JP 62043528, Roeckel, and Suzuki.

**Conclusion**

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any

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additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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